



STM-2XM

2-Channel Rate/ Thickness Monitor

SIMPLE OPERATION FOR MANY APPLICATIONS

STM-2XM is a two channel rate/thickness monitor that combines high accuracy with flexible programming and easy operation at an affordable price.

STM-2XM is equipped with five operation modes to accommodate processes from simple to complex. For example, use simple mode to monitor just one single sensor for the simplest process, or use alloy mode for codeposition monitoring. Independent mode allows STM-2XM to function as two completely separate monitors.

Two sensor inputs allow for the use of two single quartz crystal sensors or one dual quartz crystal sensor. Ten measurements are taken per second while achieving a resolution of 0.037 Å per measurement.

FEATURE PACKED

STM-2XM has eight programmable digital inputs, eight programmable digital outputs, and four analog outputs allowing for a level of integration usually reserved for more expensive instruments.

Programmable features include shutter delay, time/power monitoring, and rate sampling. Use all of these features to achieve the most accurate readings and the longest crystal life.

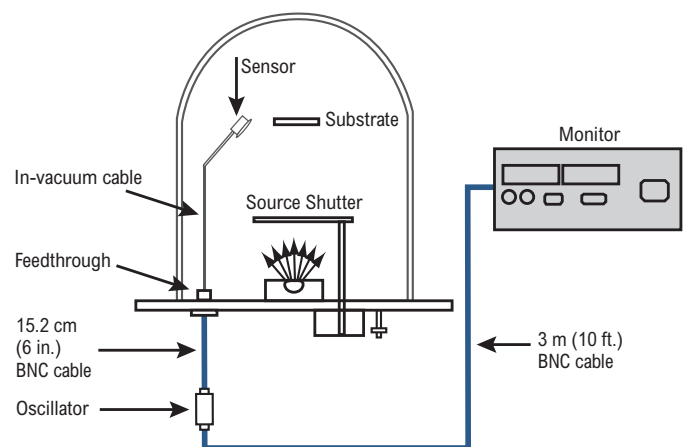
Operate and monitor STM-2XM through the simple front panel interface or program the STM-2XM through the included LabVIEW® software. This simple software can be an online or offline editor for films and system parameters and is easy to use.

EASY TO USE

STM-2XM features a high contrast LCD display and intuitive menu system. On-screen hints can be found throughout the menus for simple, guided programming and operation. The easy-to-read LCD can display in accumulated mass or thickness.

FEATURES AT A GLANCE

- Two measurement channels
- Four analog outputs for rate, rate deviation, or thickness
- Eight programmable digital inputs
- Eight programmable digital outputs
- High accuracy at 10 readings per second
- Displays mass or thickness
- Codeposition monitoring capabilities



A typical QCM system consists of STM-2XM, at least one sensor/feedthrough combination, and an oscillator kit for each sensor.

SPECIFICATIONS

Sensor inputs	Two
Compatible sensors	Single / shuttered single or dual QCM sensor
Measurement frequency range	6.0 to 5.0 MHz (fixed)
Frequency resolution	± 0.03 Hz at 6 MHz
Reference frequency stability	± 2 ppm
Thickness and rate resolution/measurement ¹	± 0.037 Å
Measurement interval	0.10 s
Stored films	15
Display mode	Thickness/Mass
Digital inputs	Eight
Digital outputs	Eight
Analog outputs	Four
Analog output rating	0 to ± 10 V, 10 mA
Relay rating	Up to 48 V (dc) • V (ac), 2 A
Mains power supply	100 to 240 V (ac) $\pm 10\%$, 50/60 Hz, 2.5 VA

¹ Tooling/density = 100/1, fundamental frequency = 6 MHz

ORDERING INFORMATION

STM-2XM-G1	STM-2XM Monitor (US power cord)
STM-2XM-G2	STM-2XM Monitor (European power cord)

ACCESSORIES

783-014-008	Rack Mount Kit — Mounts one STM-2XM monitor in a 48.3 cm (19 in.) rack
783-014-009	Dual Rack Mount Kit — Mounts two STM-2XM monitors in a 48.3 cm (19 in.) rack
783-500-109-10	3 m (10 ft.) Oscillator kit – includes Oscillator, 15.2 cm (6 in.) BNC, and 3 m (10 ft.) BNC



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Due to our continuing program of product improvements, specifications are subject to change without notice.

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